CLAIMS

1. Method for determining the presence of one or more specific ligands in a sample, said method comprising;

a) contacting the sample with an array of cell lines, each cell line comprising a reporter gene construct responding to a cellular pathway which is induced by a different specific ligand;

b) measuring the activity of the reporter gene in the individual cell lines;

c) comparing the measured activity in the individual cell lines; and

d) determining the presence of the ligands in the sample based on said comparison.

2. Method as claimed in claim 1, wherein the cell lines originate from one parent cell line.

3. Method as claimed in claim 2, wherein the cell lines originate from the human osteoblastic cell line U2-OS.

4. Method as claimed in claim 1, 2 or 3, wherein the array comprises at least two cell lines, preferably at least three cell lines.

5. Method as claimed in any of the claims 1-4, wherein one or more of the cell lines comprise one or more expression plasmids each coding for a specific component of the cellular pathway.

6. Method as claimed in claim 5, wherein the specific component is a hormone receptor.

7. Method as claimed in claim 6, wherein the hormone receptor is a steroid hormone receptor or thyroid hormone receptor.

8. Method as claimed in claim 6 or 7, wherein the reporter gene construct comprises DNA coding for an operative

hormone responsive element linked to a promoter and a reporter gene.

9. Method as claimed in claim 8, wherein the reporter gene construct comprises 3 tandem repeats of the hormone responsive element (HRE) oligonucleotide:
AAGCTTAGAACAGTTTGTAACGAGCTCGTTACAAACTGTTCTAGCTCGTTACAAACTGTTC
TAAGCTCAAGCTT
upstream of the minimal adenovirus E1B TATA promotor sequence (GGGTATATAAT) inserted in the multiple cloning site of the luciferase reporter construct pGL3.

10. Method as claimed in claim 8 or 9, wherein the DNA coding for the different hormone receptors is introduced in the pSG5 expression plasmid.

11. Method as claimed in claim 5, wherein the specific component is a ligand modifying factor.

12. Method as claimed in claim 11, wherein the ligand modifying factor is an enzyme.

13. Human osteoblastic cell line U2-OS , comprising a reporter gene construct comprising DNA coding for an operative hormone responsive element linked to a promoter and a reporter gene, and one or more expression plasmids comprising DNA coding for a hormone receptor, wherein the hormone receptor is selected from the group consisting of androgen receptor, progesterone receptor, glucocorticoid receptor, mineralocorticoid receptor, and thyroid receptor.

14. Human osteoblastic cell line as claimed in claim 13, wherein the reporter gene construct comprises 3 tandem repeats of the hormone responsive element (HRE) oligonucleotide:
AAGCTTAGAACAGTTTGTAACGAGCTCGTTACAAACTGTTCTAGCTCGTTACAAACTGTTC
TAAGCTCAAGCTT
upstream of the minimal adenovirus E1B TATA promotor sequence (GGGTATATAAT) inserted in the multiple cloning site of the

luciferase reporter construct pGL3.

15. Human osteoblastic cell line as claimed in claim 13 or 14, wherein the DNA coding for the different hormone receptors is introduced in the pSG5 expression plasmid.

16. Use of a human osteoblastic cell lines in an assay for determining the presence of one or more ligands in a sample.

17. Use as claimed in claim 16, wherein the cell line is the U2-OS cell line.